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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,664	12/12/2001	Christophe Chevallier	400.069US01	7828

7590 12/31/2003

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EXAMINER	
NGUYEN, VIET Q	

ART UNIT	PAPER NUMBER
2818	

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/017,664	CHEVALLIER, CHRISTOPHE	
	Examin r	Art Unit	
	Viet Q Nguyen	2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-54 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) 1-54 are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Group **1**, claims **1-18 and 38-39** are drawn to a flash memory device comprising a plurality of sets of local bit lines, a plurality of global bit lines, and a plurality of select transistors, each coupled between one local bit line and one associated global bit line, wherein each local line in each set is coupled to a different global bit line;

Group **2**, claims **19-22** are drawn to a flash memory system comprising four local bit lines in parallel, a pair of global bit lines each coupled to a pair of four local bit lines alternatively, and a multiplex circuit to selectively couple the associated local bit lines to associated global bit lines;

Group **3**, claims **23-26** are drawn to a flash memory system comprising four local bit lines in parallel, first and second global bit lines, first multiplex circuit selectively couple first pair of four local bit lines with first global bit line, and a second multiplex circuit selectively couple a second pair of four local bit lines to second global bit line;

Group **4**, claims **27-29** are drawn to a flash memory system comprising first, second, third, and fourth local bit lines, and first and second global bit lines, and first, second, third, and fourth select transistors, ...etc., and a first select line to activate first and second select transistors, and second select line to activate third and fourth select transistors;

Group **5**, claims **30-34** are drawn to an integrated select circuit comprising first drain diffusion region, second drain diffusion region, source diffusion region, first and second local bit lines, and a global bit line coupled to source diffusion region, wherein the first diffusion region is laterally wider than the second drain diffusion region such that a third local bit line can traverse between first local bit line and second local bit line;

Group **6**, claims **35-37 and 48-49** are drawn to a memory device having select transistors to couple even local bit lines to even global bit lines and to couple the odd local bit lines to odd global bit lines;

Group **7**, claims **40-43** are drawn to a method of operating a flash memory comprising the steps of " programming with an alternate bit line program", "monitoring logic states in global bit lines in response to the alternate bit line stress program", "comparing the pattern of logic states in global bit lines with a predetermined pattern", and "locating local and global bit line shorts in response to the monitoring";

Group **8**, claims **44-46** are drawn to a method of operating a flash memory comprising the steps of "programming even columns of addresses to a first logic state", "programming odd columns of addresses to an opposite logic state", "monitoring the memory array output", and "detecting local bit line shorts and all global bit line shorts in response to a pattern of logic states in the global bit lines";

Group **9**, claims **47** are drawn to a method of operating a flash memory comprising the steps of "programming even columns of addresses to a first logic state", "programming odd columns of addresses to an opposite logic state", "monitoring logic

states in global bit lines", and "simultaneously determining short circuit in local and global bit lines in response to a pattern of logic states in the global bit lines";

Group **10**, claims **50-54** are drawn to a method of conducting an alternate bit line stress on a flash memory array comprising the steps of "selectively coupling global bit lines to associated local bit lines, where adjacent local bit lines are selectively coupled to different global bit lines", and "applying potential voltage differences across adjacent global bit lines".

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record

showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Viet Q Nguyen whose telephone number is (703) 308-4897. The examiner can normally be reached on 7am-6pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (703) 308-4910. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

V. Nguyen

Viet Q Nguyen
Primary Examiner
Art Unit 2818

V. Nguyen
12/15/03